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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,901	03/30/2001	Hsin-Mao Hsieh		4438

7590 05/06/2003

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EXAMINER

CUEVAS, PEDRO J

ART UNIT PAPER NUMBER

2834

DATE MAILED: 05/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/820,901	HSIEH, HSIN-MAO	
	<b>Examiner</b>	<b>Art Unit</b>	
	Pedro J. Cuevas	2834	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 February 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,4,8 and 10-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4,8 and 10-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments with respect to claims 1, 4, 8, and 10-12 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,959,377 to Horng in view of U.S. Patent No. 6,087,592 to Nagel et al., further in view of U.S. Patent No. 4,849,695 to Muller et al.

Buttrick et al. discloses the construction of a miniature DC brushless motor having a dual wire stator coil (115) for a motor, the dual wire stator coil having at least two wires (A, B) co-axially wound together, each one of the wires having opposite first and second ends (A1, A2, B1, and B2) extending out from the dual wire stator coil, wherein the at least two wires have their first and second ends connected in series.

Nagel et al. teaches the construction of an enameled wire (Fig. 1) for the purpose of having a wire that holds the turns of wound wire in contact with each other and provides excellent external protection of the finished winding.

However, they fail to disclose a dual wire stator coil, wherein two terminal ends of the dual wire stator coil are respectively adapted to be connected with two output ends of a drive IC, which outputs alternating current at terminal ends of the dual wire stator coil.

Muller et al. teaches the use of an IC coil driver (71), wherein two terminal ends of the coil (72) are respectively adapted to be connected with two output ends of a drive IC (71), which outputs alternating current at terminal ends of the coil (72) for the purpose of energizing a flat coil (72).

It would have been obvious to one skilled in the art at the time the invention was made to use an IC coil driver disclosed by Muller et al. with the enameled wire disclosed by Nagel et al. on the miniature DC brushless motor disclosed by Horng for the purpose of energizing the coil with a wire that holds the turns of wound wire in contact with each other and provides excellent external protection of the finished stator coil winding.

4. Claims 4, 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,959,377 to Horng in view of U.S. Patent No. 6,087,592 to Nagel et al., further in view of U.S. Patent No. 4,849,695 to Muller et al. as applied to claim 1 above, and further in view of common knowledge in the art.

Horng in view of Nagel et al., further in view of Muller et al. discloses the claimed invention except for the use of a TA7291P/S bridge driver as the drive IC.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use of a TA7291P/S bridge driver as the drive IC, since it was known in the art that any IC with the disclosed characteristics, true value table and electrical properties is equally capable of performing the same function.

5. Claims 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,959,377 to Horng in view of U.S. Patent No. 6,087,592 to Nagel et al., further in view of U.S. Patent No. 4,849,695 to Muller et al. as applied to claim 1 above, and further in view of U.S. Patent No. 4,675,591 to Pleiss.

Horng in view of Nagel et al., further in view of Muller et al. disclose the claimed invention except for the at least two wires having their first and second ends connected in parallel and the stator coil being formed as a uni-coil winding.

Pleiss teach the construction of a dual wire stator coil (9) having two co-axially wound wires (10, 11) with their first and second ends connected in parallel, and the stator coil being formed as a uni-coil winding for the purpose of allowing separate interconnection to other conductors of other coils of the motor stator.

It would have been obvious to one skilled in the art at the time the invention was made to use the dual wire stator coil disclosed by Pleiss on the DC brushless motor disclosed by Horng in view of Nagel et al., further in view of Muller et al. for the purpose of allowing separate interconnection to other conductors of other coils of the motor stator.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

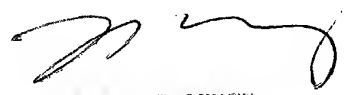
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro J. Cuevas whose telephone number is (703) 308-4904. The examiner can normally be reached on M-F from 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor R. Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-1341 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Pedro J. Cuevas  
May 2, 2003

  
NESTOR RAMIREZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800